

R E C E I V E D

JUN - 2 1998

MDRC-CRS

**INTEGRATED
Environmental Services, Inc.**

June 1, 1998

Via Facsimile and Fed-Ex

Hugh Marley
California Environmental Protection Agency
Regional Water Quality Control Board
Los Angeles Region
101 Centre Plaza Drive
Monterey Park, CA 91754

SUBJECT: **Request to Backfill Parcel B Excavated Soil**
Boeing C-6 Facility, Los Angeles, California

Dear Mr. Marley:

Per our telephone conversation today, we are submitting a request to use the excavated soil from between the piers at area of interest (AOI) 1, Rectifier Building in Parcel B of the Boeing C-6 facility as backfill material on the site. No polychlorinated biphenyls (PCBs) were identified in the soil at AOI 1. A summary of findings is presented below.

Summary of Findings

The supplemental site investigation for AOI 1 was conducted on April 29 and 30, 1998. The investigation activities were consistent with those defined in the amended sampling program for AOIs 1, 2, and 3, which was transmitted to you in a letter dated April 28, 1998.

According to our map and aerial photograph review, 32 concrete piers were constructed along the west side of the rectifier building (AOI 1) in 1942. The intended use of these piers was to hold transformers. Each pier contained four cells measuring 4 feet by 4 feet by 4 feet. The original depth of the cells in the design drawing was approximately 8 feet. During Douglas Aircraft's modification to Building 3, some of the piers were removed and the top 4 feet of the piers were demolished. The pier remains were covered with landscaping. Each cell contained approximately 3 feet of clay topped by 1 foot of gravel. It is assumed that this design allowed for the draining of accumulated water through weep holes in each cell. Prior to implementing site investigation activities, the remaining 23 piers were exposed. The soil removed from between the piers was stock piled along Denker Road. Three stock pile soil samples were collected and analyzed for polychlorinated biphenyls (PCBs). No PCBs were detected in the stock pile soil samples (Attachment A)

The amended sampling program for AOI 1 consisted of collecting grab samples from the soil inside the concrete cells. The gravel material was removed from the cells prior to sampling. All gravel was placed adjacent to the cell from which it was removed. Soil samples were collected from two cells of each pier. The sample was collected from the soil just beneath the gravel layer. No staining or odors were observed in the soil in any of the basins.

Hugh Marley
June 1, 1998

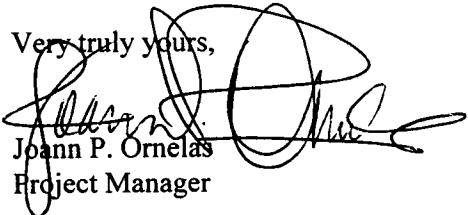
The samples were submitted to Onsite Environmental Laboratories, Inc. in Fremont, California for chemical analysis of PCBs. No PCBs were detected in any of the soil samples collected in AOI 1 (Attachment B).

Five confirmation soil samples were collected after the concrete piers were removed. No PCBs were detected in confirmation samples at AOI 1 (Attachment C).

A supplemental site investigation report will be submitted to you at a later date detailing the investigation activities and findings at the 4 AOIs in Parcel B.

Please contact me at (714) 852-9050, extension 14, if you need further information.

Very truly yours,


Joann P. Ornelas
Project Manager

attachments

cc: Mario Stavale, Boeing

Attachment A
AOI 1 - Stock Pile Sample Results

AOT₁ stock Pile Soil Samples

IEG 1015

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IE3 10145

Benz 1 of 10

The graph displays a single data series representing the percentage of children aged 0-5 years with diarrhoea in Malawi. The y-axis represents the percentage (0.0 to 100) and the x-axis represents the year (1984 to 1994). The data shows a general upward trend, starting at approximately 50% in 1984 and reaching about 65% by 1994.

Year	Percentage (%)
1984	50
1985	52
1986	54
1987	56
1988	58
1989	60
1990	62
1991	64
1992	66
1993	68
1994	70

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Ppb	Bis(2-chloroethoxy)nitromethane
Ppb	Bis(2-chloroethyl)ether
Ppb	Bis(2-chloroethyl)phenyl ether
Ppb	4-Bromoethyl phenyl ether
Ppb	Ethyloxy benzyl phenol
Ppb	4-Chloromilline
Ppb	2-Chloromethylphthaline
Ppb	4-Chlorophenyl phenyl ether
Ppb	2-Chlorophenol
Ppb	Chrysene
Ppb	Dibenz(a,h)anthracene
Ppb	Dibenzofuran
Ppb	Di-N-butyl phthalate
Ppb	1,3-Dichlorobenzene
Ppb	1,4-Dichlorobutene
Ppb	1,2-Dichlorobenzene
Ppb	3,3-Dichlorobenzidine
Ppb	2,4-Dichlorophenol
Ppb	Dimethyl phthalate
Ppb	2,4-Dinitrophenol
Ppb	2,4-Dinitrotoluene
Ppb	2,4-Dinitrobenzene
Ppb	4,6-Dinitro-2-methylphenol
Ppb	2,4-Dinitroanisole
Ppb	Fluorene
Ppb	Heptachlorobenzene
Ppb	Hepta(hydroxypropyl)benzene
Ppb	Indeno[1,2,3- <i>bc</i>]phenanthrene
Ppb	Isophorone
Ppb	2-Methylbenzylphenol
Ppb	4-Methylphenol
Ppb	Naphthalene
Ppb	2-Nitroaniline
Ppb	3-Nitroaniline
Ppb	4-Nitroaniline
Ppb	Nitrobenzene
Ppb	2-Nitrophenol
Ppb	4-Nitrophenol
Ppb	N-Nitrosodimethylamine
Ppb	N-Nitrosodimethylamine
Ppb	Pentachlorophenol
Ppb	Phenol
Ppb	Pyrene
Ppb	1,2,4-Trichlorobenzene
Ppb	2,4,5-Trichlorophenol

IES 10145

			ppb [2,4,6-Tribromophenol]	T	Tested	Detected Factor		
8270	100	86-06-2		T		ppb PCB-1016	04/24/98	
8280	20	5.0	12874-11-2	T		ppb PCB-1221	04/24/98	
8280	20	5.0	11104-28-2	T		ppb PCB-1232	04/24/98	
8280	20	5.0	11141-18-5	T		ppb PCB-1242	04/24/98	
8280	20	5.0	53408-21-9	T		ppb PCB-1254	04/24/98	
8280	20	5.0	12874-28-3	T		ppb PCB-1260	04/24/98	
8280	20	5.0	11037-49-1	T		ppb	04/24/98	
8280	20	5.0	11038-32-5	T		ppb	04/24/98	
						ppb Aldrin	04/24/98	
						ppb alpha-BHC	04/24/98	
						ppb beta-BHC	04/24/98	
						ppb gamma-BHC	04/24/98	
						ppb gamma-BHC (Lindane)	04/24/98	
						ppb Chlordane	04/24/98	
						ppb 4,4'-DD	04/24/98	
						ppb 4,4'-DDD	04/24/98	
						ppb 4,4'-DDE	04/24/98	
						ppb 4,4'-DDT	04/24/98	
						ppb Dieldrin	04/24/98	
						ppb Endosulfan I	04/24/98	
						ppb Endosulfan II	04/24/98	
						ppb Endosulfan sulfone	04/24/98	
						ppb Endrin	04/24/98	
						ppb Endrin aldehyde	04/24/98	
						ppb Heptachlor	04/24/98	
						ppb Heptachlor epoxide	04/24/98	
						ppb Methylchloroform	04/24/98	
						ppb Toxaphene	04/24/98	
						ppm Up to 4 including C-12	04/24/98	
						ppm C13-22	04/24/98	
						ppm C23 & Higher	04/24/98	
						ppm Total	04/24/98	
						ppm Diesel	04/24/98	
						ppm Gasoline	04/24/98	
						ppm TPH	04/24/98	
						ppm Carbon Exchange Capacity	04/24/98	

(a) GC units for Method 8270 are reported in ng.

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ORANGE COAST ANALYT

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IES 10146

BOE-C6-0133757

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ORANGE COAST ANALYT

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ES 10145

BOE-C6-0133759

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9 2

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ORANGE COAST ANALYTICAL

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IES 10145

BOE-C6-0133761

Attachment B
AOI 1 - Soil Sample Results

LABORATORY ANALYTICAL REPORT

Polychlorinated Biphenyls by Method 8080

ONSITE
ENVIRONMENTAL
LABORATORIES, INC.



sampled :	4/29/98	Project Mgr:	Joann Ornelas
received :	4/30/98	Client :	Integrated Environmental Services
analyzed :	4/30/98	Project :	C6 Facility Parcel B
Report # :	98025a.rpt	Units :	ug/Kg
ID # :	98025	Matrix :	Soil

Field ID Number	Method Blank	1 AOI1-CB1-S1	2 AOI1-CB1-S2	3 AOI1-CB2-S1	4 AOI1-CB2-S2	5 AOI1-CB3-S1
Target Compounds	RL					
or 1016	20	ND	ND	ND	ND	ND
or 1221	20	ND	ND	ND	ND	ND
or 1232	20	ND	ND	ND	ND	ND
or 1242	20	ND	ND	ND	ND	ND
or 1248	20	ND	ND	ND	ND	ND
or 1254	20	ND	ND	ND	ND	ND
or 1260	20	ND	ND	ND	ND	ND
Surrogate		110%	47%	105%	77%	34%
Dilution factor (DF)		1	1	1	1	1

: ND - Analytes not detected at, or above the stated detection limit

RL - Reporting limit

DF - Dilution Factor

PQL - Practical Quantitation Limit - Multiply RL by the DF to obtain the PQL for a specific sample

LABORATORY ANALYTICAL REPORT**Polychlorinated Biphenyls by Method 8080**

ONSITE
ENVIRONMENTAL
LABORATORIES, INC.



sampled : 4/29/98
 received : 4/30/98
 analyzed : 4/30/98
 Port # : 98025b.rpt
 ID # : 98025

Project Mgr: Joann Ornelas
 Client : Integrated Environmental Services
 Project : C6 Facility Parcel B
 Units : ug/Kg
 Matrix : Soil

Field ID Number	6	7	8	9	10	11
Lab ID Number	AOI1-CB3-S2	AOI1-CB4-S1	AOI1-CB4-S2	AOI1-CB5-S1	AOI1-CB5-S2	AOI1-CB6-S1
Target Compounds	RL					
or 1016	20	ND	ND	ND	ND	ND
or 1221	20	ND	ND	ND	ND	ND
or 1232	20	ND	ND	ND	ND	ND
or 1242	20	ND	ND	ND	ND	ND
or 1248	20	ND	ND	ND	ND	ND
or 1254	20	ND	ND	ND	ND	ND
or 1260	20	ND	ND	ND	ND	ND
Surrogate		44%	19%	27%	133%	84%
Dilution factor (DF)	1	1	1	1	1	1

ND - Analytes not detected at, or above the stated detection limit

RL - Reporting limit

DF - Dilution Factor

PQL - Practical Quantitation Limit - Multiply RL by the DF to obtain the PQL for a specific sample

LABORATORY ANALYTICAL REPORT**Polychlorinated Biphenyls by Method 8080**

ONSITE
ENVIRONMENTAL
LABORATORIES, INC.



Date sampled : 4/29/98 Project Mgr: Joann Ornelas
 Date received : 4/30/98 Client : Integrated Environmental Services
 Date analyzed : 4/30/98 & 5/1/98 Project : C6 Facility Parcel B
 Report # : 98025c.rpt Units : ug/Kg
 Job ID # : 98025 Matrix : Soil

Field ID Number	Lab ID Number	12 AOI1-CB6-S2	13 AOI1-CB7-S1	14 AOI1-CB7-S2	15 AOI1-CB8-S1	15D AOI1-CB8-S1D	16 AOI1-CB8-S2
Target Compounds	RL						
or 1016	20	ND	ND	ND	ND	ND	ND
or 1221	20	ND	ND	ND	ND	ND	ND
or 1232	20	ND	ND	ND	ND	ND	ND
or 1242	20	ND	ND	ND	ND	ND	ND
or 1248	20	ND	ND	ND	ND	ND	ND
or 1254	20	ND	ND	ND	ND	ND	ND
or 1260	20	ND	ND	ND	ND	ND	ND
Surrogate		36%	114%	168%	116%	120%	40%
Dilution factor (DF)		1	1	1	1	1	1

ND - Analytes not detected at, or above the stated detection limit

RL - Reporting limit

DF - Dilution Factor

PQL - Practical Quantitation Limit - Multiply RL by the DF to obtain the PQL for a specific sample

LABORATORY ANALYTICAL REPORT

Polychlorinated Biphenyls by Method 8080

ONSITE
ENVIRONMENTAL
LABORATORIES, INC.

Sampled :	4/29/98	Project Mgr:	Joann Ornelas
Received :	4/30/98	Client :	Integrated Environmental Services
Analyzed :	4/30/98 & 5/1/98	Project :	C6 Facility Parcel B
Port # :	98025d.rpt	Units :	ug/Kg
Lab ID # :	98025	Matrix :	Soil

Field ID Number		17	18	19	20	21	22
Lab ID Number		AOI1-CB9-S1	AOI1-CB9-S2	AOI1-CB10-S1	AOI1-CB10-S2	AOI1-CB11-S1	AOI1-CB11-S2
Target Compounds	RL						
PCP 1016	20	ND	ND	ND	ND	ND	ND
PCP 1221	20	ND	ND	ND	ND	ND	ND
PCP 1232	20	ND	ND	ND	ND	ND	ND
PCP 1242	20	ND	ND	ND	ND	ND	ND
PCP 1248	20	ND	ND	ND	ND	ND	ND
PCP 1254	20	ND	ND	ND	ND	ND	ND
PCP 1260	20	ND	ND	ND	ND	ND	ND
Surrogate		39%	18%	120%	166%	22%	22%
Dilution factor (DF)		1	1	1	1	1	1

ND - Analytes not detected at, or above the stated detection limit

RL - Reporting limit

DF - Dilution Factor

PQL - Practical Quantitation Limit - Multiply RL by the DF to obtain the PQL for a specific sample

LABORATORY ANALYTICAL REPORT

Polychlorinated Biphenyls by Method 8030

ONSITE
ENVIRONMENTAL
LABORATORIES, INC.



sampled :	4/29/98	Project Mgr:	Joann Ornelas
received :	4/30/98	Client :	Integrated Environmental Services
analyzed :	5/1/98	Project :	C6 Facility Parcel B
Report # :	98025e.rpt	Units :	ug/Kg
ID # :	98025	Matrix :	Soil

Field ID Number		23	24	25	26	27	28
Lab ID Number		AOI1-CB12-S1	AOI1-CB13-S1	AOI1-CB14-S1	AOI1-CB15-S1	AOI1-CB15-S2	AOI1-CB16-S1
Target Compounds	RL						
or 1016	20	ND	ND	ND	ND	ND	ND
or 1221	20	ND	ND	ND	ND	ND	ND
or 1232	20	ND	ND	ND	ND	ND	ND
or 1242	20	ND	ND	ND	ND	ND	ND
or 1248	20	ND	ND	ND	ND	ND	ND
or 1254	20	ND	ND	ND	ND	ND	ND
or 1260	20	ND	ND	ND	ND	ND	ND
Surrogate		38%	40%	41%	22%	26%	24%
Dilution factor (DF)		1	1	1	1	1	1

: ND - Analytes not detected at, or above the stated detection limit

RL - Reporting limit

DF - Dilution Factor

PQL - Practical Quantitation Limit - Multiply RL by the DF to obtain the PQL for a specific sample

LABORATORY ANALYTICAL REPORT

Polychlorinated Biphenyls by Method 8080



sampled : 4/29/98 Project Mgr: Joann Ornelas
 received : 4/30/98 Client : Integrated Environmental Services
 analyzed : 5/1/98 & 5/2/98 Project : C6 Facility Parcel B
 rpt #: 98025f.rpt Units : ug/Kg
 ID #: 98025 Matrix : Soil

Field ID Number		29	29D	30	31	32	33
Lab ID Number		AOI1-CB17-S1	AOI1-CB17-S1D	AOI1-CB18-S1	AOI1-CB19-S1	AOI1-CB19-S2	AOI1-CB20-S1
Target Compounds	RL						
or 1016	20	ND	ND	ND	ND	ND	ND
or 1221	20	ND	ND	ND	ND	ND	ND
or 1232	20	ND	ND	ND	ND	ND	ND
or 1242	20	ND	ND	ND	ND	ND	ND
or 1248	20	ND	ND	ND	ND	ND	ND
or 1254	20	ND	ND	ND	ND	ND	ND
or 1260	20	ND	ND	ND	ND	ND	ND
Surrogate		49%	65%	190%	186%	123%	48%
Dilution factor (DF)		1	1	1	1	1	1

: ND - Analytes not detected at, or above the stated detection limit

RL - Reporting limit

DF - Dilution Factor

PQL - Practical Quantitation Limit - Multiply RL by the DF to obtain the PQL for a specific sample

LABORATORY ANALYTICAL REPORT

Polychlorinated Biphenyls by Method 8080



Date sampled : 4/29/98
 Date received : 4/30/98
 Date analyzed : 5/1/98 & 5/2/98
 Report # : 98025g.rpt
 Lab ID # : 98025

Project Mgr: Joann Ornelas
 Client : Integrated Environmental Services
 Project : C6 Facility Parcel B
 Units : ug/Kg
 Matrix : Soil

Field ID Number		34	35	36	37	38	39
Lab ID Number		AOI1-CB20-S2	AOI1-CB21-S1	AOI1-CB21-S2	AOI1-CB22-S1	AOI1-CB22-S2	AOI1-CB23-S1
Target Compounds	RL						
or 1016	20	ND	ND	ND	ND	ND	ND
or 1221	20	ND	ND	ND	ND	ND	ND
or 1232	20	ND	ND	ND	ND	ND	ND
or 1242	20	ND	ND	ND	ND	ND	ND
or 1248	20	ND	ND	ND	ND	ND	ND
or 1254	20	ND	ND	ND	ND	ND	ND
or 1260	20	ND	ND	ND	ND	ND	ND
Surrogate		170%	77%	98%	48%	51%	90%
Dilution factor (DF)		1	1	1	1	1	1

ND - Analytes not detected at, or above the stated detection limit

RL - Reporting limit

DF - Dilution Factor

PQL - Practical Quantitation Limit - Multiply RL by the DF to obtain the PQL for a specific sample

Attachment C
AOI 1 - Confirmation Sample Results

LABORATORY ANALYTICAL REPORT

Polychlorinated Biphenyls by Method 8080



Sampled : 5/6/98 Project Mgr: Joann Ornelas
 Received : 5/7/98 Client : Integrated Environmental Services
 Analyzed : 5/7/98 Project : C6 Facility Parcel B
 Part #: 98036a.rpt Units : ug/Kg
 ID #: 98036 Matrix : Soil

Field ID Number		1	2	3	4	5	
Lab ID Number		AOI1-CB1-C1	AOI1-CB6-C2	AOI1-CB11-C3	AOI1-CB17-C4	AOI1-CB22-C5	
Target Compounds	RL						
r 1016	20	ND	ND	ND	ND	ND	
r 1221	20	ND	ND	ND	ND	ND	
r 1232	20	ND	ND	ND	ND	ND	
r 1242	20	ND	ND	ND	ND	ND	
r 1248	20	ND	ND	ND	ND	ND	
r 1254	20	ND	ND	ND	ND	ND	
r 1260	20	ND	ND	ND	ND	ND	
Surrogate		70%	76%	51%	44%	59%	
Dilution factor (DF)		1	1	1	1	1	

ND - Analytes not detected at, or above the stated detection limit

RL - Reporting limit

DF - Dilution Factor

PQL - Practical Quantitation Limit - Multiply RL by the DF to obtain the PQL for a specific sample